

# SYSTEMS, METHODS, AND AN ARTICLE OF MANUFACTURE FOR DETERMINING FREQUENCY VALUES ASSOCIATED WITH FORCES APPLIED TO A DEVICE

## Abstract

A system, method, and article of manufacture for determining frequency values associated with forces applied to a device are provided. The method includes determining a first plurality of spectral amplitude values associated with a first forcing waveform applied to the device. The method further includes determining a second plurality of spectral amplitude values associated with a second forcing waveform applied to the device. The method further includes determining a maximum spectral amplitude value based on the first and second plurality of spectral amplitude values. The method further includes determining a threshold amplitude value based on the maximum spectral amplitude value and an acceptance value. The method further includes determining a first plurality of desired frequency values by selecting frequency values associated with a subset of the first plurality of spectral

amplitude values that are greater than or equal to the threshold amplitude value. Finally, the method includes determining a second plurality of desired frequency values by selecting frequency values associated with a subset of the second plurality of spectral amplitude values that are greater than or equal to the threshold amplitude value.